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VERIFICATION OF THE EXPANDED PROGRAM ON IMMUNIZATION COLD CHAIN EQUIPMENT DELIVER PROJECT

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Monitoring and Evaluation Program (MEP)

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ACRONYMS

BHU	Basic Health Unit
CS Pro	Census and Survey Processing System
DHQ	District Headquarter Hospital
DG	Director General
DHO	District Health Officer
EPI	Expanded Program on Immunization
GDN	Goods Delivery Note
GRD	Government Rural Dispensary
GOP	Government of Pakistan
JSI	John Snow, Inc.
MCH	Municipal Child Health Center
MEP	Monitoring and Evaluation Program
MSI	Management Systems International
MSD	Medical Store Depot
RHC	Rural Health Center
SDP	Service Delivery Point
TOP	Task Order Plan
THQ	Tehsil Headquarter Hospital
USAID	United States Agency for International Development

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The monitoring team would also like to thank all those who facilitated the work of the team and enabled it to successfully complete this monitoring activity. We extend our appreciation to all the stakeholders for contributing their time and valuable insights to the verification process. We will provide the collected information to USAID/Pakistan, so that they may use these findings to improve the supply chain process for the distribution of Expanded Program on Immunization cold chain equipment in Pakistan.

EXECUTIVE SUMMARY

Last year, the USAID/Pakistan DELIVER project, implemented by John Snow, Inc. (JSI), procured cold chain equipment for the Government of Punjab's Expanded Program on Immunization (EPI). This was a one-time procurement on behalf of the Punjab Government.

USAID/Pakistan's Health Office tasked the Monitoring and Evaluation Program (MEP) with verifying that the EPI cold chain equipment reached the central warehouse in Lahore, district health officers (DHOs), and service delivery points (SDPs), as allocated. The commodities included four types of freezers (model MK 314, MK 304, MK 074 and MK 044), vaccine carriers, cold boxes, freezer tags, voltage stabilizers, and thermometers.

To conduct the verification task, MEP has taken a sample of nine districts out of the 36 total districts in Punjab. The monitoring team visited 37 sites, which included four sites in every district as well as the central warehouse in Lahore.

The monitoring team collected data using four different methods, which allowed for triangulation of information and therefore enhanced the reliability of the data. The techniques included brief key informant interviews, record verification, observations, and photographs. A comprehensive instrument incorporating all these methodologies was used to verify commodity receipts and quantities at the store. Data collected were verified against records supplied by DELIVER Pakistan prior to data collection.

The key findings of this monitoring assignment are as follows:

- The central warehouse medical store depot (MSD) in Lahore received 93 percent of the vaccine carriers that were actually approved and purchased by USAID. One-hundred percent of the rest of the commodities that were approved and purchased by USAID were delivered.
- MEP monitors experienced difficulty verifying the ILR 074 cold chain freezers at stores in Sheikhpura, as eight out of 75 of the freezers were missing. Also, the MEP monitors were only able to verify two out of 79 voltage stabilizers as well. The teams were also unable to verify equipment and commodities at six other sites, as small quantities of commodities ranging from thermometers (2) at the DHO in Chakwal to freezers (3) at the DHO in Lahore were missing.
- The team found the record keeping fairly well maintained at the district level where eight out of 10 stores (1 MSD, and 9 DHOs) visited by MEP had complete records (receipts, stock registers, and delivery vouchers). However, the situation at the end-user level (SDP) is not very promising, as 21 out of 27 SDPs visited had complete records.
- MEP monitors observed in all the sites visited that the four different models of freezers had the USAID logo on the cartons, as per the agreement between DELIVER and USAID. The remaining five commodities were not marked at all.
- The process of collecting the equipment from the central warehouse in Lahore, as reported by the EPI store managers, is exceedingly costly for the district health offices primarily due to the poor transportation arrangement and weak logistics management and coordination among various levels of recipients of the commodities.

INTRODUCTION

Through its DELIVER Project, USAID/Pakistan purchased cold chain equipment for the Government of Punjab's Expanded Program on Immunization (EPI). The purchase included refrigerators, cold boxes, vaccine carriers, voltage stabilizers, freezer bags, and thermometers. These items were expected to be delivered to all 36 districts in Punjab. MSI was tasked with verifying that the cold chain equipment for EPI reached the intended destinations at the provincial depot as well as the selected district health offices (DHOs) and local health centers.

Project Background

The USAID-funded Health Supplies Distribution Project, known as DELIVER, began operations in Pakistan in August 2009. The project is focused on improving and enhancing the Government of Pakistan's in-country distribution and health commodity supply chains. Implemented by John Snow, Inc. (JSI), DELIVER aims to help the Planning Commission of Pakistan, the provincial and regional departments of health, and the relevant non-governmental organizations to determine the correct amount of health commodities to order each year; establish a modern storage and tracking system; and improve the distribution system throughout the country. The project also aims to ensure multilevel coordination on the delivery of health commodities by working closely with the Government of Pakistan.

DELIVER provides extensive technical support to the Government of Pakistan in the areas of contraceptive forecasting, procurement planning, warehouse management, supply chain strengthening, and automation of warehouse and logistics management information systems. The overall project goals are to:

- a) Improve central warehouse and supply operations;
- b) Improve procurement capacity and contraceptive supplies;
- c) Establish the logistics management information system; and
- d) Build capacity and enhance the means of quality assurance.

Purpose of the Assignment

The purpose of this assignment is to verify that cold chain equipment purchased with USAID funding has reached the intended destinations, including the provincial central warehouse, district health officers (DHOs), and local health centers or service delivery points (SDPs) in Punjab. In Punjab, there are six different types of SDPs for the identified commodities: Basic Health Units (BHUs), Rural Health Centers (RHCs), Municipal Child Health Centers (MCH), District Headquarter Hospitals (DHQ), Tehsil Headquarter Hospitals (THQ), and Government Rural Dispensaries (GRD).

Assignment Overview

USAID/Pakistan's Health Office requested that MEP monitor four sets of commodities procured by DELIVER in late 2012. Individual task order plans (TOPs) were set up, each targeting a specific group of commodities, drugs, and equipment. In the case of EPI, MEP sought to verify the delivery of cold chain equipment by conducting site visits to the central warehouse in Lahore, nine district health offices, and 27 SDPs at the end level. The output of these verification activities is presented in this report.

Work on this assignment began in January 2013 with initial meetings with the USAID Health Office and DELIVER. The collection of documents and additional information pertinent to the assignment, initial site

visits, and the design and pre-test of instruments followed in March 2013 (Annex 2 contains the data collection instrument). The task order plan (No. 37) was resubmitted in response to comments from USAID, and approved on April 5, 2013.

Site visits were conducted over a period of five calendar weeks (April to May 2013). To introduce the nature of the assignment, and to help facilitate the work of the MEP team, DELIVER sent out a letter addressed to the director generals and directorates of health services at the federal, provincial, and regional levels of the Government of Pakistan.

The monitoring team presented its findings to USAID during an interim debrief on May 14, 2013, and a draft report was submitted on June 10, 2013. The design of the monitoring approach, management of the task, review of documents, design of data collection instruments, content analysis of data, and report writing was completed by MEP staff.

MONITORING DESIGN AND METHODOLOGY

This section provides details on the formulation of the assignment, the monitoring plan, the sample, and the process for data collection and processing.

Preparation of Field Work

Preparation of the field work involved a number of meetings with different stakeholders. MEP held meetings with DELIVER and the USAID Health Office and Program Management Unit to discuss the assignment. The monitoring team also conducted preliminary research on the specifications of the nine items purchased, including obtaining photographs of the items from the Internet. Additional information on the supply chain, from the MSD to the DHOs and SDPs, was obtained through phone calls and emails prior to the pretest. The monitoring team conducted telephone interviews and contacted officials via email. The first phone call was made to the director general of the health office in Lahore. The Directorate General provided updated contact information for all the DHOs. Calls to the district health officers were made to informally introduce them to the verification exercise. Contact information for the EPI district level warehouse (store) was also obtained, and MEP followed up with the EPI store managers who were the focal point of contact for this assignment. The distribution process for each district was discussed with the EPI store managers prior to the start of field work.

Sampling Plan

In addition to the central warehouse at Lahore (MSD), it was decided, in consultation with USAID, to visit 25 percent (9) of the 36 districts scheduled to receive commodities. The nine districts were chosen randomly using MS Excel. The nine districts in the sample are Attock, Chakwal, Gujranwala, Jhelum, Lahore, Mianwali, Narowal, Rajanpur, and Sheikhupura (Figure 1).

Following the agreed upon task order plan, MEP proposed visits to three SDPs in addition to the EPI store at the DHO and the MSD in each of the nine sampled districts, making a total of 37. Table 1 presents a summary of the 37 sites visited.

TABLE 1: S07 SUMMARY OF SITE VISITS

Districts	DHO	DHQ/THQ/EPI Center	RHC/MCH	BHU	Total Sites
Central Warehouse Lahore -MSD	-	-	-	-	1
1 Sheikhupura	1	1	1	1	4
2 Attock	1		2	1	4
3 Jhelum	1	1	1	1	4
4 Chakwal	1	1	1	1	4
5 Narowal	1	1	1	1	4
6 Rajanpur	1	1	1	1	4
7 Mianwali	1	2		1	4
8 Gujranwala	1	1	1	1	4
9 Lahore	1		1	2	4
Total Sites Visited					37

Data Collection Methods

MEP developed a comprehensive instrument to verify and monitor the specific commodities. The instrument had different components: a short interview questionnaire, observation checklists, record verification checklists, and instructions for taking photographic evidence. The instrument was also designed to provide sufficient data to verify the receipt, condition, and use of equipment. This has been aligned with the project purpose as stated in the TOP for the assignment.

Four different methods were used to collect data in the field:

- a. **Interviews:** The monitoring team conducted interviews at three levels: the central warehouse in Lahore, the EPI store managers at the DHOs, and the worker in charge at the SDP. After an introduction to the assignment, the interviewer solicited specific information on the receipt and distribution process, the available records, and the condition of the equipment. In instances where commodities were delivered from one of these three levels to the end user, feedback from that specific site is an important mechanism for verification.
- b. **Observation:** This includes physical inspection of the commodities. Observation in conjunction with reviewing stock registers and other records helps to identify missing commodities and their quantities. Observations not only include a physical count of the commodities at the stores, but also include checking for compliance with USAID branding requirements, and checking the condition and use of the equipment (at the SDPs).

- c. **Record Verification:** This method was very critical to the entire verification process. MEP monitors visited the sites at times when not all the commodities were available. While some of the commodities have yet to be delivered, some may have moved to the next level. Verifying that the relevant record is maintained for the receipt and delivery transactions and that the two match the available stock was extremely important.
- d. **Photographic evidence:** All records kept by the stores were photographed as there were no photocopying machines. In addition to documenting records, the MEP team took pictures of packaging, branding, and item specifications to substantiate field observations.

Notification

Following issuance of the introductory letter from Dr. Tariq, the Chief of Party for DELIVER, the MEP team contacted the relevant resource persons at the MSD and the district levels seeking appointments to discuss the upcoming verification exercise. Once the appointments were made for a given district, visit dates were firmed up to finalize the travel plans.

The EPI store managers facilitated the site visits to the DHOs, and accompanied the monitoring team to each SDP.

Instrument Design and Testing

After developing the sample, MEP selected two districts from the remaining list of 26 districts for initial site visits. An initial visit to the DHO in Rawalpindi was held to meet with the EPI store manager. The initial visit helped the monitoring team fine-tune the design of the data collection instrument and protocol. Subsequently, the monitoring tool was pretested at the DHO and the two SDPs in Sialkot in March 2013. The final instrument was shared with USAID for information, review, and approval.

Following the standard practice, the instrument includes an introduction, instructions for each section, skip rules, and prompts for omitting certain material as needed. The guidelines on each question provide notes for the field monitor as he or she moves through the questionnaire.

The English instrument was used at all 37 sites, but the interviews were conducted in Urdu. Data collected and recorded was translated back into English for data entry purposes.

Database and Analysis

The field data was moved to the MEP office in both paper and electronic format. The database for the assignment was developed by the MEP IT department using a software package called the Census and Survey Processing System (CS Pro). All data from the instruments were inputted into the database, and coded photographic evidence was tagged and filed.

Data Quality Limitations

There are four major data quality limitations:

1. Verification at sites involved both physical counts of commodities and photographic evidence. Some of the stores were poorly lit, which created a challenging environment to document and get an accurate account of the equipment. Despite such hurdles, the monitors made every effort to thoroughly verify the equipment at the stores and take photographic evidence.
2. The records found at the DHOs and SDPs were manually maintained and handwritten in stock registers. The records were poorly stored and stacked, and were piled in a way that made it very difficult to retrieve and verify a representative sample.
3. It was not possible to open the boxes of some freezers that were still unpacked and sealed, as oftentimes they were blocked by other large objects.
4. The condition of the equipment was recorded based on comparing the description of the monitors' observations to the description presented by the person interviewed while conducting the store checks.

INTERVENTION OVERVIEW

The USAID/DELIVER Project is supplying cold chain equipment to the EPI in Punjab, which will in turn be further distributed to various service delivery points. DELIVER's interventions focus on the key objectives of 1) improving the performance of the health system by redressing weak supply management systems, and 2) maintaining the EPI cold chain in Punjab.

Commodity Types and Specifications

Table 2 lists the cold chain equipment procured through DELIVER.

TABLE 2: EPI COLD CHAIN EQUIPMENT SPECIFICATIONS

Sr. N	EPI Cold Chain Equipment	Specification
1	Freezer MF 314	MF 314 is a large combined vaccine and icepack freezer.
2	Freezer MK 304	MK 304 is a large combined vaccine and icepack freezer.
3	Freezer MK 074	MK 074 is a small sized combined vaccine and icepack freezer.
4	Solar Refrigerator MK 044	A solar-powered refrigerator is a refrigerator which runs on electricity provided by solar energy.
5	Cold Box	A cold box is used for the transport of vaccines
6	Voltage Stabilizer	A Voltage Stabilizer is an electrical device designed to automatically maintain a constant voltage level.
7	Freezer Tag	The freezer tag monitors the temperature of the vaccines
8	Vaccines Carrier	Vaccine Carrier is a box with airtight lid, easy to handle, strong to face all hurdles during transportation.
9	Thermometer	The thermometer is for temperature monitoring in freezers, cold boxes and vaccine carriers.

Photographs of the items can be found in Annex 5.

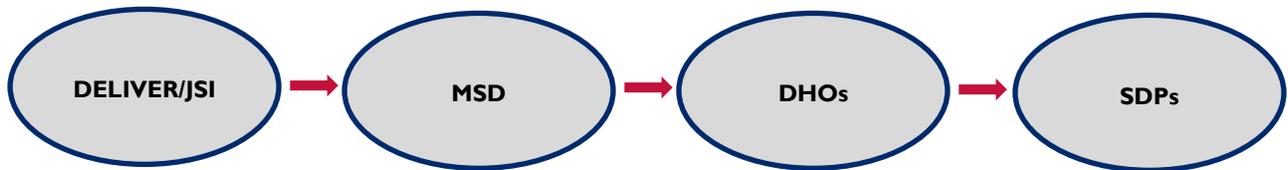
Commodity Distribution Process

DELIVER purchased the equipment, which arrived at the Port of Karachi and was then transported to the MSD in Lahore. Once the equipment arrived at the MSD, the director of health services for EPI develops a distribution plan. Notification is then sent to the 36 district health officers regarding the availability of the equipment.

The EPI store managers from the DHOs travel to MSD in Lahore with the notification letter. The letter is exchanged by the EPI MSD manager for a goods receiving note that lists the quantities of equipment for that particular district. The EPI store manager uses the goods receiving note to obtain a gate pass for entering the central warehouse. The equipment is released to the EPI storekeeper and then transported to the store at the DHO.

Once the equipment arrives at the DHO, distribution to the final service delivery points is based on the demand coming from different SDPs. This demand is of an informal nature. The district EPI store manager conveys to all the SDPs through phone calls that the equipment has arrived. When an SDP requests equipment, the EPI store manager transports the equipment to the SDP. A copy of the transaction is kept on file at the DHO via a goods delivery note and at the SDP through a goods receiving note. The figure below summarizes the commodity distribution chain.

FIGURE 2: COMMODITY DISTRIBUTION PROCESS



FINDINGS

The MEP team gave USAID an interim debrief on May 14, 2013 in which initial findings were shared. A more elaborate synopsis of the findings is presented by each site visited for verification. The categorization of the findings follows the format used to conduct the verification activities. Commodity quantities verified is presented first, followed by the quality of the record keeping, branding, condition of the equipment, and other findings.

Verification of Equipment

The verification of the quantity delivered was done at three levels. The first was at the MSD, the second was the DHO, and the third was the SDP. Equipment was verified through goods receiving notes, stock records, and goods delivery notes. A physical count of the equipment was also done at the stores in the MSD, DHOs, and SDPs.

Provincial Central Warehouse (MSD)

As per the delivery plan shared by DELIVER, the EPI equipment was received by the MSD in different shipments from September through December 2012. Based on the records kept at the MSD, additional information provided by USAID, and physical verification, it was determined that almost all the commodities - with the exception of the vaccine carriers that MSD received - were in accordance with what was purchased by USAID. The distribution plan provided by DELIVER and used for the verification assignment is based on the request for goods and not those actually purchased.

Table 3 below shows the figures provided by DELIVER (plan), the total amount purchased by USAID, and the total amount of items verified. The second column in the table gives the planned amount of commodities which was initially agreed upon by the Government of Punjab and USAID.¹ The third column gives the quantities that were actually purchased by DELIVER through approval from USAID.²

TABLE 3: QUANTITY DELIVERED AT MSD

Commodities	Planned	Purchased	Actual Received	Variance	
				Number	Percent
Freezer MF 314	36	36	36	-	-
Refrigerator MK 304	124	124	124	-	-
Freezer MK 074	3,000	2,750	2,750	-	-
Solar Refrigerator MK 044	15	15	15	-	-
Cold Box	1,000	900	900	-	-
Freezer Tag	5,000	5,000	5,000	-	-
Vaccine Carrier	6,000	5,650	5,280	-370	7%
Thermometer	5,000	5,000	5,000	-	-
Voltage Stabilizer	3,161	2,910	2,910	-	-

¹ Task order 5-public health, Commodity Procurement Information Request dated May 16, 2011

² MEP office was informed about the actual purchased amount by DELIVER in an email sent to MEP from USAID's health office, dated June 11, 2013.

District Health Offices

After reviewing the goods receiving notes, stock registers, and the goods delivery notes, outstanding stock balances for each EPI store was determined. Equipment was then physically verified and counted. Seven out of nine of the DHOs had discrepancies between stock in and stock out in terms of commodities available. Most of these discrepancies are related to smaller items like thermometers, freezer tags, and cold boxes. However, at three sites, the monitors found that the MK 074 freezers were missing, and at one site a solar refrigerator could not be accounted for. Table 4 presents the verified equipment by DHO.

TABLE 4: SUMMARY OF VERIFICATION AT DHOS

Districts	Total Received	Total Verified	Comments
DHO Attock	531	529	More than 99 percent of the commodities received were verified. Only 1 freezer (model MK 074) and 1 voltage stabilizer were missing.
DHO Chakwal	444	442	More than 99 percent of the commodities received were verified. Only 2 thermometers were missing.
DHO Jhelum	424	416	More than 99 percent of the commodities received were verified. Only 2 cold boxes and 6 freezer tags were missing.
DHO Gujranwala	1,198	1,144	Around 95 percent of the commodities received were verified. A total of 22 freezers tags, 31 thermometers, and 1 voltage stabilizer were missing.
DHO Narowal	460	460	All commodities verified.
DHO Sheikhpura	665	654	Around 98 percent of the commodities were verified. Only 8 freezers (model MK 074), 1 thermometer, and 2 voltage stabilizers were missing.
DHO Mianwali	393	391	More than 99 percent of the commodities received were verified. Only 1 solar freezer and 1 thermometer were missing.
DHO Rajanpur	324	324	All commodities verified.
DHO Lahore	1110	1107	More than 99 percent of the commodities were verified. Only 3 freezers (model MK 074) were missing.

Although a number of sites were missing items, the DHO in Sheikhpura was found to be missing a large amount of more expensive items. The monitoring team could not verify eight out of 24 of the small freezers (model MK 074), two out of 29 of the voltage stabilizers, and one out of 95 thermometers. In Lahore, three of the same model freezers were not verified. It should be noted that for each freezer, a voltage stabilizer and a thermometer is also provided, which were found to be missing too.

Service Delivery Points

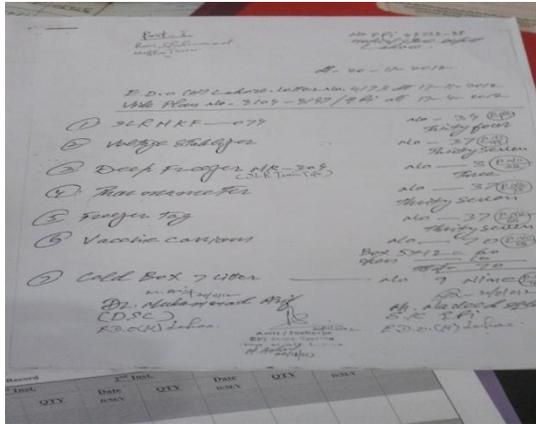
At the SDPs, goods receiving notes and stock registers were examined and the items in the facilities were physically checked and photographed. Very few items were missing at the sites visited.

TABLE 5: SUMMARY OF VERIFICATION AT SDP

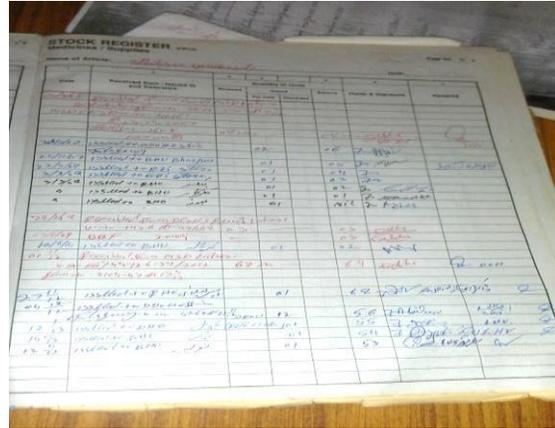
Districts	Sites	Total Received	Total Verified	Comments
Attock	MCH	1	1	All commodities verified
	RHC	2	1	1 voltage stabilizer was missing
	BHU	1	1	All commodities verified
Chakwal	RHC	3	3	All commodities verified
	BHU	2	2	All commodities verified
	DHQ	3	3	All commodities verified
Gujranwala	THQ	4	4	All commodities verified
	BHU	4	4	All commodities verified
	DHQ	4	4	All commodities verified
Jhelum	RHC	4	4	All commodities verified
	BHU	5	5	All commodities verified
	DHQ	4	4	All commodities verified
Lahore	BHU	4	2	1 freezer tag and 1 thermometer could not be verified
	BHU	1	1	All commodities verified
	RHC	8	6	2 freezer tags could not be verified
Mianwali	EPI	3	3	All commodities verified
	BHU	3	3	All commodities verified
	DHQ	3	2	1 freezer tag could not be verified
Narowal	BHU	4	4	All commodities verified
	RHC	4	4	All commodities verified
	DHQ	4	4	All commodities verified
Rajanpur	RHC	4	4	All commodities verified
	BHU	4	4	All commodities verified
	DHQ	4	4	All commodities verified
Sheikhupura	RHC	4	4	All commodities verified
	BHU	4	4	All commodities verified
	DHQ	3	2	1 freezer tag could not be verified

Record Keeping

In order to verify the goods delivered through the supply chain, the monitoring team examined three sets of documents: a) the goods receiving notes, b) the stock registers, and c) the goods delivery notes. At the MSD and the DHOs, all three documents were reviewed, whereas at the SDPs, the necessary documents are the goods receiving notes and the stock registers, which were available and verified.



Goods Receiving Note



Stock Register

MSD and District Health Offices

The MSD as well as eight out of 10 of the EPI stores had complete records. However, the two DHOs, Mianwali and Sheikhpura, had incomplete records. At the SDPs, 21 out of 27 sites had complete records; five sites had no records, and the remaining site had partial records. A detailed account of record keeping at all the sites is given in Annex 4.

TABLE 6: RECORD KEEPING AT MSD AND DHOS

Stores	Status
Medical Store Depot	Complete
DHO Attock	Complete
DHO Chakwal	Complete
DHO Gujranwala	Complete
DHO Jhelum	Complete
DHO Lahore	Complete
DHO Mianwali	Partial
DHO Narowal	Complete
DHO Rajanpur	Complete
DHO Sheikhpura	Partial

Service Delivery Points

TABLE 7: RECORD KEEPING AT SDPS

Districts	Sites	Comments
Attock	DHQ	Complete records
	RHC	Complete records
	BHU	Complete records
Chakwal	RHC	Complete records
	BHU	Complete records
	DHQ	Complete records
Gujranwala	THQ	No records
	BHU	Complete records
	DHQ	Complete records
Jhelum	RHC	Complete records
	BHU	Complete records
	DHQ	Complete records
Lahore	BHU	Complete records
	BHU	Complete records
	RHC	Complete records
Mianwali	EPI	Complete records
	BHU	Complete records
	DHQ	Partial records
Narowal	BHU	Complete records
	RHC	Complete records
	DHQ	Complete records
Rajanpur	RHC	No records
	BHU	No records
	DHQ	No records
Sheikhupura	RHC	Complete records
	BHU	Complete records
	DHQ	No records

Branding of the Equipment

As per the agreement with USAID, tertiary packaging of the commodities purchased with USAID funds must be branded with the USAID logo; however, no branding is required directly on the commodities. Branding in the form of the USAID logo was present on the outer boxes of the four freezers. The remaining five commodities did not have the USAID logo on the packages. No USAID branding was directly on the items. Table 8 summarizes the findings on branding.

TABLE 8: BRANDING ON PACKAGING AND ITEM

Item	Branding on Package
Freezer MF 314	Yes
Freezer MK 304	Yes
MK 074	Yes
MK 044	Yes
Voltage Stabilizers	No
Cold Box	No
V. Carriers	No
Freezer Tags	No
Thermometers	No

Use and Condition of the Equipment

Most of the equipment sent to the SDPs was installed and was operating. The equipment, for the most part, was in excellent condition. SDPs identified some issues with the small freezer (Model MK 074). Although it was operational, feedback from the staff at all the SDPs pointed to the fact that it was not functioning properly to freeze ice-packs. Staff at the SDPs also noted that the thermostat was out of order and they were unable to adjust the temperature on this model.



Initially, the solar freezer (Model MK 044) came without solar panels, rendering them inoperable. It was later found that they were in storage at DHOs in Attock, Chakwal, and Mianwali. USAID informed MEP after submission of the draft report that the solar panels were in the process of being delivered as they were mistakenly left out of the original consignment by the vendor. JSI/DELIVER identified the problem and recently handed over the panels to the DG Health Punjab Office. As of May 27, 2013, the EPI manager at the MSD said that they were en-route.

Staff at all the SDPs reported that they did not understand the significance of the freezer tags. They did not understand how to use them, and in many cases the tags were found lying in the freezers. The EPI store managers at five DHOs thought that the DELIVER project should provide a standard operating procedures manual along with these items. (In an email to MSI on June 11, 2013, USAID/Pakistan's Health Office stated that standard operating procedure manuals are always part of the delivery of items and are usually in English. Moreover, JSI/DELIVER translated the ILRS brochure into Urdu and distributed via DOH/Punjab to all

recipients.) Issues with understanding the operational function of some of these commodities have been an ongoing challenge. The email also stated that as per CPIR, the final transportation from MSD/Lahore to all districts per the DOH distribution plan to the DHQ, RHC, BHU, or SDP level is the responsibility of the Government of Punjab. It is not a part of the JSI/DELIVER work.

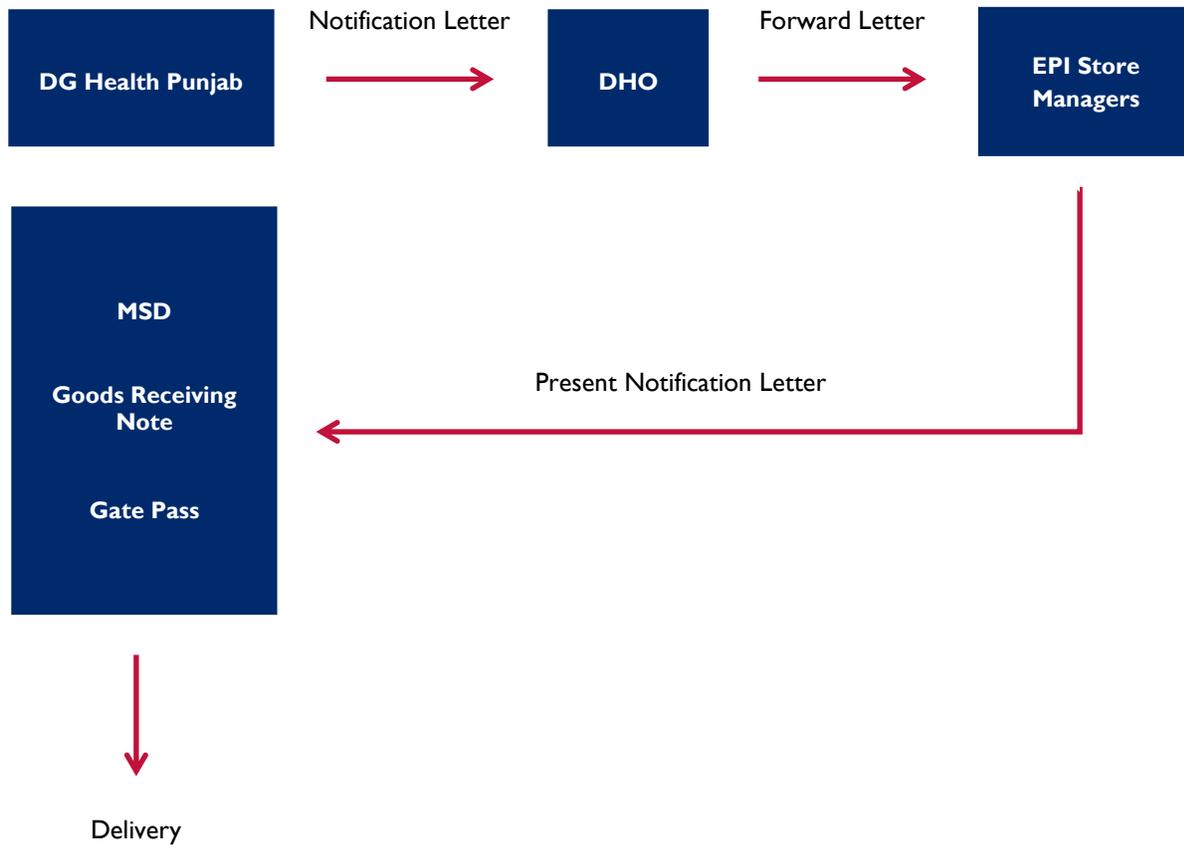
Other Findings

One major concern expressed by all of the EPI store managers at the DHOs was related to the process of obtaining the equipment from the MSD and the cost of transporting the equipment from Lahore to their respective districts. Once the EPI store managers receive notification from the MSD, they go to Lahore to collect the items. This can take up to two or three days for districts located far from Lahore. The process, EPI store managers said, is cumbersome, as they have to move from one department to another to obtain four sets of signatures. The EPI store managers interviewed said that they also have to pay petty bribes to lifters and the gatekeepers at the warehouse. One EPI store manager said, “Getting the equipment released from MSD is a great discomfort for us. The lifters demand a higher wage. We therefore end up paying a lot more than the market rate for such work.”

Another EPI store manager stated, “We already incur a huge cost by travelling all the way down to Lahore. Paying unjust higher wages to the lifters at the MSD just makes things difficult and more expensive for us.” (In an email from USAID/Pakistan’s Health Office to MSI, dated June 11, 2013, the final transportation from MSD/Lahore to all districts per the DOH distribution plan to the DHQ, RHC, BHU, or SDP level is the responsibility of the Government of Punjab. It is not a part of the JSI/DELIVER work.) Even though final transportation from the MSD in Lahore is not the responsibility of JSI/DELIVER, it is important to note that another concern expressed by those interviewed is the cost of transporting the goods from Lahore back to the SDPs. The hiring of trucks and labor varies from district to district, yet the EPI store managers said that these costs were not typically budgeted. One EPI manager from Mianwali said, “Our district governments don’t have a budget line for this sort of an expense. We had to incur a huge cost to bring our equipment to Mianwali.”

Figure 3 elaborates on the entire equipment collection process.

FIGURE 3: EQUIPMENT COLLECTION PROCESS



CONCLUSIONS

- There was very little difference between the amount of equipment approved and purchased by USAID and what was actually received at the MSD - approximately 7 percent less in the case of the vaccine carriers, which is the commodity with the largest discrepancy.
- The DHOs were more organized in maintaining their records than the service delivery points.
- Seven out of nine DHOs could not account for a small portion of the equipment meant for the site. Also, the monitoring team found that DHOs in Mianwali and Sheikhpura had only partial records on hand. Both of these areas had commodities missing as well.
- Although the SDPs have a poorer quality of record keeping, the monitoring team was able to verify equipment at most of the sites.
- USAID branding is required on tertiary packaging. The USAID logo, however, was observed only on the freezer cartons. The remaining five commodities did not have the USAID logo on the packaging.
- Most of the equipment across all the sampled districts was found in good working order per the specifications. However, at the SDP level, the small freezer (Model MK 074) was not fully functional.
- The SDPs did not fully understand the purpose of the freezer tags.
- The equipment collection process was very costly and cumbersome for the district EPI store managers.

RECOMMENDATIONS

- USAID should encourage the Government of Pakistan to put in place an internal monitoring mechanism to track the supply chain of donor-procured equipment and ensure complete transparency.
- The USAID DELIVER project should adopt appropriate measures to check the condition of the small freezer (Model MK 074). Upon inspection of its condition, DELIVER should replace the freezer with a more efficient model if appropriate.
- USAID should encourage the Government of Pakistan to ensure that there are funds allocated for transportation to move the items to their intended destinations.
- To the extent possible, USAID should require that expensive commodities be branded.

LESSONS LEARNED FOR MONITORING

It is important that the information provided about the commodities and delivery points be complete and accurate to reduce the margin for any errors. For this reason, the initial visit was important for MEP to develop an understanding of realities on the ground, particularly with the commodity distribution process. Additional research and visits also yielded crucial information, which was integral in the development of a monitoring tool that captured the various issues related to the delivery and receipt of EPI cold chain commodities.

ANNEXES

Annex I: List of Persons Interviewed

Districts	Dates	Persons Interviewed /Designation
Central Warehouse Lahore - MSD	April 11, 2013	EPI Storekeeper
Sheikhupura	April 12, 2013	EPI Storekeeper Junior Technician DHQ, Vaccinator, RHC Sharaqpur Vaccinator, BHU Nizampur
Attock	April 17, 2013	EPI Storekeeper Women Medical Officer, BHU Jassian Lady Health Visitor, MCH Mirza In-charge, RHC Bahtar
Jhelum	April 18, 2013	EPI Storekeeper Lady Health Visitor, DHQ Lady Health Visitor, BHU Kala Gujra Assistant Superintendent, RHC Dina
Chakwal	April 23, 2013	EPI Storekeeper Lady Health Visitor, DHQ Health Officer, BHU Maingan Lady Health Visitor, RHC Pir Phullahi
Narowal	April 25, 2013	EPI Storekeeper, Lady Health Visitor, DHQ In-charge, BHU Pejowali Senior Medical Officer, RHC Badomali
Rajanpur	May 7, 2013	District Health Officer EPI Storekeeper
Mianwali	May 7, 2013	EPI Storemanager Mid-Wife DHQ Vaccinator, EPI center Mianwali Tehsil Lady Health Visitor, BHU Kundiyaan
Gujranwala	May 20, 2013	EPI Storekeeper Vaccinator, DHQ Lady Health Visitor THQ Lady Health Visitor, BHU Nathgaran
Lahore	May 21, 2013	EPI Storekeeper Inspector Vaccination, BHU Dogra kalan Vaccinator, BHU Manawan

Annex 2: Instrument

Expanded Program on Immunization Equipment Verification (Verification Methods: Interview, stock check and stock records check)

[Please carry with you all the documentation that MEP has received with regards to EPI equipment form DELIVER; for example goods delivery notes, Shipment documents, Courier receipts etc.]

Name of the Interviewer		Date:	
Site Address			Time Start
Province	Punjab	Time Finished	
District		Site Type (Store/SDP)	
Site Name			
Site Address			

[Upon reaching the site, contact office in-charge or his/ her designee]

Staff at the site that participated during the verification process		
Name	Designation/ Contact	Type of participation during the verification process (Interview/physical verification/ record keeping)
1.		
2.		
3.		

Introduction (read verbatim):

Assalam-o-Alaikum, My name is..... ; and we are from the USAID Monitoring and Evaluation Program; we are helping USAID in understanding the effectiveness of their projects in Pakistan. I am contacting you with reference to the notification letter sent to the Director General's Health Services, by the USAID funded DELIVER PROJECT dated 8th February 2013. The objective of my visit is to verify that the USAID funded Cold Chain Equipment under Expanded Program on Immunization (EPI) has reached you. For this purpose, on behalf of your institution/office, I will need to ask you few questions review the relevant record maintained at your office and visit the store to physically verify the commodities, if available. The findings of my visit will be shared with USAID to bring improvements to the supply chain of DELIVER procured

commodities in Pakistan. Your assistance would be very much appreciated. May we proceed now? *[If yes, please proceed with the following questions.]*

Note for the Enumerators
For stores Q1 to Q14 are relevant; follow the instructions/ skipping pattern
For SDPs all questions are relevant, follow the instructions/ skipping pattern
Symbols “✓”, “✗” and “?” may be used for the responses as “Yes”, “No” and “I don’t know” respectively

1- Did you receive/collect EPI cold chain equipment procured by USAID DELIVER PROJECT?

- Yes
- No *[If No, discontinue the interview]*
- I don't know *[Inquire at least one other relevant staff who could possibly be aware of receipt of USAID DELIVER equipment and ask the same question again; otherwise discontinue the interview]*

2- From which (Office/Store) did you receive/collect EPI cold chain equipment procured by USAID DELIVER PROJECT? *[Only names of the offices/stores along with their location is requested here]*

3- Please name the EPI equipment received through USAID DELIVER PROJECT? *[Name each item one by one to get response for each commodity; fill out the table below and note down any additional comments below in the comments field]*

Table Q3 – Equipment received

SN	Equipment and Commodities	Mark ✓ if received or Mark ✗ if not received
1	Freezers MF 314	
2	Ice lined refrigerator MK 304	
3	Ice lined refrigerator MK 074	
4	Solar refrigerator model 120 – 30	
5	Cold Boxes	
6	Freezer Tag	
7	Vaccine Carrier	
8	Thermometer	
9	Voltage Stabilizers	

Additional Information

--

Note: From this point onwards, only selected commodities, as indicated under Table Q3, should be referred to when asking questions, making observations and reviewing records

4- How did your office rate the overall quality of each USAID DELIVER commodity at the time of receipt?

Please consider “poor”, “fair”, and “excellent” as four parameters of condition. [Name each item received (as indicated under Q2) to get rating for each commodity; ignore items that were not received; fill out the table below and note down any additional comments below in the comment field]

Table Q4 – Overall condition of equipment on receipt

SN	Equipment and Commodities	Rate the condition of equipment (Mark ✓ in the relevant cell)		
		Poor	Fair	Excellent
1	Freezers MF 314			
2	Ice lined refrigerator MK 304			
3	Ice lined refrigerator MK 074			
4	Solar refrigerator model 120 – 30			
5	Cold Boxes			
6	Freezer Tag			
7	Vaccine Carrier			
8	Thermometer			
9	Voltage Stabilizers			
Comments on the overall condition				

5- Was/Is each USAID DELIVER equipment package and items marked with the USAID logo when received?

[Name each item to get response for each commodity; ignore items that were not received; fill out the table below and note down any additional comments below in the comment field]

Table Q5 – Overall branding of equipment on receipt

SN	Equipment and Commodities	USAID Logo (Mark ✓/*/? in the relevant cell)	
		Package	Items within package
1	Freezers MF 314		
2	Ice lined refrigerator MK 304		
3	Ice lined refrigerator MK 074		
4	Solar refrigerator model 120 – 30		
5	Cold Boxes		
6	Freezer Tag		
7	Vaccine Carrier		
8	Thermometer		
9	Voltage Stabilizers		
Comments on the branding			

6- Were/Are DELIVER specific cold chain equipment/stock identifiable in the stock record?

- Yes, All commodities
- Yes but not all commodities *[request response by each equipment and fill out the table below]*
- No *[If No, skip questions 7 and 8]*

Table (Q6) – Tracking of DELIVER Equipment

SN	Equipment and Commodities	Mark ✓ / * as applicable
1	Freezers MF 314	
2	Ice lined refrigerator MK 304	
3	Ice lined refrigerator MK 074	
4	Solar refrigerator model 120 – 30	
5	Cold Boxes	
6	Freezer Tag	
7	Vaccine Carrier	

SN	Equipment and Commodities	Mark ✓ / ✖ as applicable
8	Thermometer	
9	Voltage Stabilizers	

[For items where response is ✖, move to Q10; for the rest of items move to the next question]



7- Did you receive/collect EPI cold chain equipment procured by USAIDDELIVER PROJECT in more than one instalment? I would need to see relevant receipts in support of your answer.

- Yes** [If Yes, (i) ask installment dates and quantity for each equipment from “Goods Receive Note/Letter” and add in the table below (ii) Take pictures of all relevant equipment delivery and/or receipt notes]
- No** [If No, (i) ask the date of receipt and quantity for each equipment from “Goods Receive Note/Letter” and indicate this under “1st Installment Date “column(ii)Take pictures of all relevant equipment delivery and/or receipt notes]

Table (Q-7) – Goods Received Record

#	Equipment	1 st Inst.		2 nd Inst.		3 rd Inst.		4 th Inst.	
		Date	QTY	Date	QTY	Date	QTY	Date	QTY
		D/M/Y		D/M/Y		D/M/Y		D/M/Y	
1	Freezers MF 314								
2	Ice lined refrigerator MK 304								
3	Ice lined refrigerator MK 074								
4	Solar refrigerator model 120–30								
5	Cold Boxes								
6	Freezer Tag								
7	Vaccine Carrier								
8	Thermometer								
9	Voltage Stabilizers								

8- Did you register these commodities in your Stock Register / Stock Database?

- Yes** [If yes, (i) request to look at the stock register / stock database and note date of stock-in and quantity in the table below (ii)Take pictures of all relevant equipment delivery and/or receipt records]
- No** [If no, skip Table Q8]

Table (Q-8) – Stock-in Record

#	Equipment	1 st Entry		2 nd Entry		3 rd Entry		4 th Entry	
		Date D/M/Y	QTY	Date D/M/Y	QTY	Date D/M/Y	QTY	Date D/M/Y	QTY
1	Freezers MF 314								
2	Ice lined refrigerator MK 304								
3	Ice lined refrigerator MK 074								
4	Solar refrigerator model 120-30								
5	Cold Boxes								
6	Freezer Tag								
7	Vaccine Carrier								
8	Thermometer								
9	Voltage Stabilizers								

9- Is your office/site expected to send/transfer any of the EPI cold chain equipment procured by USAID DELIVER PROJECT to the next level?

- Yes *[If yes, ask for all the recipient names as per actual distribution or distribution plan; take picture of the distribution list/plan]*
- No *[If No, skip Q10&Q12]*

USAID DELIVER EPI Cold Chain Equipment recipients

10- Have you delivered all USAID DELIVER equipment to the next level? (Not for SDP)

- All of the Equipment** [(i) request to look at the “Goods Delivery Note (with recipient signature/seal or separate equipment receipt letter from recipient)” and “Stock Register/ Stock Database” and fill out the table below. (ii)Take pictures of all relevant equipment delivery notes and stock-out register (take printout of the database reports, if applicable) [Skip Q11]
- Some of the Equipment** [(i) request to look at the “Goods Delivery Note (with recipient signature/seal or separate equipment receipt letter from recipient)” and “Stock Register/ Stock Database” and fill out the table below. (ii)Take pictures of all relevant equipment delivery and/or receipt notes and stock-out register (take printout of the database reports, if applicable)]
- None**

Table (Q-10) – Stock-out Record

For each Equipment, mention Quantity, Date and indicate (Y/N) Discrepancy between Goods Delivery Note & Stock-out register, if any

Recipient Office Name	Freezers MF 314	Ice lined refrigerator MK 304	Ice lined refrigerator MK 074	Solar refrigerator model 120–30	Cold Boxes	Freezer Tag	Vaccine Carrier	Thermometer	Voltage Stabilizers
All Recipient Offices (Aggregate)	QTY								
1	QTY								
	DTE								
	Disc(Y/N)								

Recipient Office Name		Freezers MF 314	Ice lined refrigerator MK 304	Ice lined refrigerator MK 074	Solar refrigerator model 120-30	Cold Boxes	Freezer Tag	Vaccine Carrier	Thermometer	Voltage Stabilizers
2	QTY									
	DTE									
	Disc(Y/N)									
3	QTY									
	DTE									
	Disc (Y/N)									
4	QTY									
	DTE									
	Disc (Y/N)									
5	QTY									
	DTE									
	Disc (Y/N)									
6	QTY									
	DTE									

Recipient Office Name		Freezers MF 314	Ice lined refrigerator MK 304	Ice lined refrigerator MK 074	Solar refrigerator model 120-30	Cold Boxes	Freezer Tag	Vaccine Carrier	Thermometer	Voltage Stabilizers
7	Disc (Y/N)									
	QTY									
	DTE									
	Disc (Y/N)									
8	QTY									
	DTE									
	Disc (Y/N)									
9	QTY									
	DTE									
	Disc (Y/N)									

[Add additional sheets if required]

11- Do you have DELIVER specific equipment in your store or installed at this site?

- Yes** *[If yes, visit the store/ installation points at site and randomly observe each equipment type for branding and condition; take pictures of all observations; fill out the table below]*
- No** *[Skip the table below and provide reason below in the comments field] [go to Q9]*

Table (Q-12) – Equipment Store Count

SN	Equipment and Commodities	QTY	USAID Logo ✓ / * / ? (Packaging)	USAID Logo ✓ / * / ? (Item)	Rate the overall condition of equipment		
					Poor	Fair	Excellent
1	Freezers MF 314						
2	Ice-lined refrigerator MK 304						
3	Ice-lined refrigerator MK 074						
4	Solar refrigerator model 120 – 30						
5	Cold Boxes						
6	Freezer Tag						
7	Vaccine Carrier						
8	Thermometer						
9	Voltage Stabilizers						
<u>Comments on the overall branding and condition</u>							

12- How would you rate the overall quality of USAID DELIVER Equipment at the time of its delivery to the commodity recipients? *[Name each item one by one to get rating for each commodity; fill out the table below and note down any additional comments below in the comment field]*

Table (Q-13) – Condition of Equipment - Delivery

SN	Equipment and Commodities	Rate the condition of equipment (Mark ✓ in the relevant cell)		
		Poor	Fair	Excellent
1	Freezers MF 314			
2	Ice lined refrigerator MK 304			
3	Ice lined refrigerator MK 074			
4	Solar refrigerator model 120 – 30			
5	Cold Boxes			
6	Freezer Tag			
7	Vaccine Carrier			
8	Thermometer			
9	Voltage Stabilizers			
Comments on the overall branding and condition				

13- Did you get EPI Cold Chain Equipment as per the demand? *[Name each item one by one to get response for each commodity; fill out the table below and note down any additional comments below in the comment field]*

SN	Equipment and Commodities	(Mark ✓ in the relevant cell)			
		Less than Requirement	More than Requirement	As per Requirement	No Requirement
1	Freezers MF 314				
2	Ice lined refrigerator MK 304				
3	Ice lined refrigerator MK 074				
4	Solar refrigerator model 120 – 30				
5	Cold Boxes				
6	Freezer Tag				

SN	Equipment and Commodities	(Mark ✓ in the relevant cell)			
		Less than Requirement	More than Requirement	As per Requirement	No Requirement
7	Vaccine Carrier				
8	Thermometer				
9	Voltage Stabilizers				
Comments					

14- Do you have any specific comments to improve the EPI equipment delivery and receipt process?

Comments

Note: The following section applies to Service Delivery Points Only

Service Delivery Points Only

15- Have you started using (one or more unit) equipment procured by USAID DELIVER PROJECT?

- Yes, all of the equipment** *[Observe that all equipment provided are being used and fill out table Q15; take pictures (if possible), skip Q16]*
- Yes, some of the equipment** *[Ask names of the equipment, observe that the equipment provided is being used and fill out table Q15; take pictures]*
- No**

Table Q15 – Equipment Usage

SN	Equipment and Commodities	In Use (✓ / ✗) (As per the interviewee response)	In Use (✓ / ✗) (As per the enumerators observation)	Enumerator to provide the basis for item wise status based on observation <i>[This is mandatory for each item]</i>
1	Freezers MF 314			
2	Ice lined refrigerator MK 304			
3	Ice lined refrigerator MK 074			
4	Solar refrigerator model 120 – 30			
5	Cold Boxes			
6	Freezer Tag			
7	Vaccine Carrier			
8	Thermometer			
9	Voltage Stabilizers			

16- Why the EPI equipment provided by USAID DELIVER PROJECT is not being used? *[Provide reason for each item based on interviewee response]*

Table Q16 – Equipment Not In Use

SN	Equipment and Commodities	Reason as informed by interviewee <i>[This is mandatory for each item]</i>
1	Freezers MF 314	

SN	Equipment and Commodities	Reason as informed by interviewee <i>[This is mandatory for each item]</i>
2	Ice lined refrigerator MK 304	
3	Ice lined refrigerator MK 074	
4	Solar refrigerator model 120 – 30	
5	Cold Boxes	
6	Freezer Tag	
7	Vaccine Carrier	
8	Thermometer	
9	Voltage Stabilizers	

17 - Are you facing any issues in the usage of the equipment?

- Yes** *[If yes, please fill in the table and get response for each commodity]*
- No** *[If no, please ignore the table]*

SN	Equipment and Commodities	Reason as informed by interviewee <i>[This is mandatory for each item]</i>
1	Freezers MF 314	
2	Ice lined refrigerator MK 304	
3	Ice lined refrigerator MK 074	
4	Solar refrigerator model 120 – 30	
5	Cold Boxes	

SN	Equipment and Commodities	Reason as informed by interviewee <i>[This is mandatory for each item]</i>
6	Freezer Tag	
7	Vaccine Carrier	
8	Thermometer	
9	Voltage Stabilizers	

Annex 3: Task Order Plan

The Monitoring and Evaluation Program

Task Order Plan (TOP) #37 Monitoring of Expanded Program on Immunization (EPI)

- I. **USAID TOP Manager:** John Eyres, Deputy Office Director, Health Office
- II. **MSI TOP Manager:** Ahmed S. Shaikh, MEP- Director, Monitoring
Sarah Khokhar, MEP - Relationship Manager, Health
- III. **USAID/Pakistan Unit:** Health Office
- IV. **Start and End Dates:** February 1, 2013 – July 8, 2013

V. Purpose

The purpose of the assignment is to verify that the Expanded Program on Immunization (EPI) Cold Chain Equipment have reached the Medical Store Depot (MSD) Lahore, district health offices and service delivery points (DHQ/THQ/BHUs/RHC/MCH centers) in Punjab. MSI will use a random purposeful sample for this task.

VI. Activities and Worksites

The USAID-funded Health Supplies Distribution Project known as USAID | DELIVER PROJECT started in August 2009. The project focuses on improving and enhancing Government of Pakistan's in-country distribution and health commodity supply chains. Implemented by John Snow Inc., this project aims to help Planning Commission of Pakistan, provincial and regional Departments of Health and non-government organizations etc. to determine the correct amount of health commodities to order each year, establishing a modern storage and tracking system, and improving the distribution system throughout the country. It also aims to ensure multilevel coordination on the delivery of health commodities.

Under the DELIVER project, cold chain equipment is being supplied to the Expanded Program on Immunization (EPI) Punjab which will be further distributed to different EPI Centers in Punjab. Overall, the project's interventions focus on the key objectives of 1) improving the performance of the health system by redressing weak supply management systems and 2) maintaining the EPI cold chain in Punjab. This is a one-time procurement and supplies by DELIVER on behalf of the Government of Punjab. MSI will verify the receipt of commodities and equipment at the Medical Store Depot (MSD) in Lahore, a sample of district health offices, and a sample of final service delivery points.

Annex A provides details of EPI equipment supplied at to the medical store depot (MSD) in Lahore, Punjab. The procurement plan is included in Annex B. The district distribution plan for the EPI equipment is also attached in Annex C.

This assignment tasks the MEP team to verify that cold chain equipment for EPI have reached the intended destinations at the provincial depot as well as select district level health offices and final service delivery points. All the commodities have been delivered to the MSD warehouse by December 2012 – January 2013 and have also been distributed to the respective district health offices. Verification is expected to begin in late March 2013 and continue through April 2013.

MSI will visit the MSD, which is the provincial distribution center in Lahore, followed by verification visits to nine district health offices (25%) which have received the commodities, and service delivery points from where the equipment is being distributed. The data collection method will include interviews, a stock check and a stock records check. Around 70% of the equipment was delivered in September 2012; whereas the rest of the commodities were delivered on different dates throughout the month of December 2012.

Provincial/ Regional Hubs	District Level Sites	Service Delivery Points	Total Sites Visited
I (Lahore MSD) 100%	9 District Health Offices (25% of 36 receiving commodities)	27 service delivery points (SDP) ((3 SDPs per district - 3 19=27)	37

MSI will engage its staff to examine registers, and use observation checklists and photography to confirm receipt of supplies.

The tasks for the assignment are:

- Meet with DELIVER team and USAID to discuss the monitoring plan/visits and obtain letters of introduction for the provincial and district hubs along with contact information for the monitoring visits.
- Develop notification procedure for contacting EPI Program and other recipient centers about the monitoring visits.
- Conduct an initial visit to 1 district health office
- Design survey monitoring instrument (verification checklists and interview questions with guidelines)
- Develop data collection plan
- Pre-test survey instrument
- Share instruments with USAID
- Finalize instruments and deploy field teams for data collection
- Develop tabulation plan
- Data entry and cleaning
- Findings Debrief with USAID
- Analysis and report writing

VII. Deliverables

- Midterm debrief with USAID
- Findings debrief with USAID
- Draft Verification Report
- Verification Report

VIII. Schedule

Task	Dates	Revised Dates
Preparation, document review and initial visits	February 13-28 2013	
Drafting of instruments	February 25 - 8 March 2013	
Pre-test and sharing of instruments with USAID	March 13 – March 22, 2013	
Data collection, cleaning and entry	March 27 - April 24, 2013	April 11 – May 17, 2013
Midterm debrief with USAID	on/about April 8, 2013	May 14, 2013
Findings, analysis and report writing	April 24 - May 13, 2013	May 17- June 7, 2013
Findings debrief with USAID	on/about May 1,2013	May 27, 2013
Submission of draft verification report to USAID	May 14, 2013	June 10, 2013
Comments from USAID (2 weeks)	May 28 2013	June 24, 2013
Submission of final verification report (2 weeks)	June 11, 2013	July 8, 2013

IX. International Travel Information (On or About)

N/A

X. Staffing

This task order will involve MEP monitoring staff.

XI. Anticipated Level of Effort (Person Days)

Name of Person	Prep-Meetings	Pre-Travel	Prep-Site Visit	Travel - TPM	TPM - Instruments	Field-Testing	Code book	Travel - Training	Training	Travel - Monitoring Visits	Monitoring Visits	Database	Data Entry	Report Writing	Mgt	TOTAL
Jill Tirnauer	1													2	1	4
Ahmed Shaikh	1	2	2												4	9
Sarah Khokhar	2	2	2				1								5	12
MEP Staff	3	2	2		2	1	3			10	10		2	10	5	50
Wisal Muhammad (IT)												4				4

Note: Travel is based on estimation.

XII. MEP Partner Implementing the TOP

Management Systems International

XIII. Attached Reference Documents

Annex A: Equipment Purchased

Annex B: Distribution Plan for Commodity Support

Annex C: Procurement Plan

XIII. Authorizations

The undersigned hereby authorize the following items checked below for the Task Order Plan (TOP) described above (Cross out the items that do not apply):

- Completion of the TOP, as described above;
- TOP staffing, as described above.

[COR to either sign below or indicate “approve” on a return email]

Contracting Officer’s Representative (COR)
Sherry Ward, or designate

Date

TOP ANNEX A: Equipment Purchased

		First Point of Supply	
Freezers (storage capacity 264L (MF 314))	36 Nos		
Ice lined Refrigerator twin type, storage capacity 108L (Electricity/TWC=3000 or vest frost MK-304)	124 Nos		
Ice lined refrigerator twin type storage capacity 20L (MK-074)	3,000 Nos	, Directorate General Health Services (EPI) 24 Cooper Road, Lahore, Punjab	
Solar refrigerator model 120-30	15 Nos		
Cold box RCW 25/CG (Blue)	1,000 Nos		
Freezer Tag	5,000 Nos		
Vaccine carrier	6,000 Nos		
Thermometer Model 104614	5,000 Nos		
Stabilizer	3,161 Nos		

TOP ANNEX B: Distribution Plan

Distribution Plan of USAID Commodity Support "Expanded Program on Immunization"											
S No	Districts	No of Ucs	Freezers (Large) MF - 314 for District EPI Store	I.L.R Twin Large Size for Tehsil Store MK-304	I.L.R Twin Type MK-074	Voltage Stablizers	Cold Boxes	Vaccine Carriers	Termometers	Freezer Tags	Solar Refrigerators
1	Rawalpindi	192	1	6	130	137	50	200	273	273	4
2	Attock	75	1	4	83	88	40	100	107	107	1
3	Chakwal	68	1	3	63	67	15	100	97	97	1
4	Jhelum	51	1	3	65	69	40	100	73	73	0
5	Gujranwala	192	1	5	145	151	50	300	273	273	0
6	Hafizabad	42	1	2	38	41	50	100	60	60	0
7	Gujrat	119	1	3	107	111	10	200	169	169	0
8	Mandi Bahauddin	65	1	3	56	60	20	100	92	92	0
9	Sailkot	124	1	3	119	123	10	200	176	176	0
10	Narowal	74	1	2	67	70	10	100	105	105	0
11	Lahore	165	1	10	144	155	30	300	235	235	0
12	Sheikhupura	103	1	3	75	79	15	200	146	146	0
13	Nankana Sahib	68	1	3	65	69	30	100	97	97	0
14	Kasur	113	1	3	77	81	20	200	161	161	0
15	Okara	115	1	3	99	103	20	200	164	164	0
16	Multan	131	1	4	113	118	50	300	186	186	0
17	Lodhran	73	1	3	60	64	20	100	104	104	0
18	Vehari	89	1	3	71	75	30	200	127	127	0
19	Sahiwal	89	1	2	84	87	50	200	127	127	0
20	Pak Pattan	63	1	2	59	62	10	100	90	90	0
21	Kahnewal	100	1	3	90	94	20	200	142	142	0
22	Faisalabad	289	1	5	220	226	100	300	411	411	0
23	Toba Tek Singh	82	1	3	70	74	10	100	117	117	0
24	Jhang	85	1	3	70	74	20	200	121	121	0
25	Chiniot	44	1	3	41	45	10	100	63	63	0
26	Sargodha	167	1	4	123	128	26	200	233	233	0
27	Mainwali	57	1	3	51	55	20	100	81	81	1
28	Bhakkar	42	1	3	44	48	35	100	60	60	2
29	Khushab	51	1	3	49	53	15	100	73	73	0
30	D.G.Khan	59	1	3	53	57	10	100	84	84	4
31	Rajanpur	44	1	3	40	44	10	100	63	63	0
32	Muzaffarabad	93	1	3	78	82	10	200	132	132	2
33	Layyah	44	1	3	50	54	44	100	63	63	0
34	Bahawalpur	108	1	5	117	123	50	300	154	154	0
35	Bahawalnagar	118	1	3	83	87	20	150	168	168	0
36	Rahim Yar Khan	122	1	4	101	106	30	250	173	173	0
	Total	3516	36	124	3000	3160	1000	6000	5000	5000	15

Annex 4: Status of Record Keeping by Sites

Districts	Sites	Complete Records	Partial Records	No Records
Attock	DHO			
	MCH			
	RHC			
	BHU			
Chakwal	DHO			
	RHC			
	BHU			
	DHQ			
Jhelum	DHO			
	RHC			
	BHU			
	DHQ			
Gujranwala	DHO			
	THQ			
	BHU			
	DHQ			
Narowal	DHO			
	BHU			
	RHC			
	DHQ			
Sheikhupura	DHO			
	RHC			
	BHU			
	DHQ			
Mianwali	DHO			
	EPI			
	BHU			
	DHQ			
Rajanpur	DHO			
	RHC			
	BHU			
	THQ			
Lahore	DHO			
	BHU			
	BHU			
	RHC			
Central Warehouse	MSD			

Annex 5: EPI Cold Chain Equipment Photographs

Freezer MF 314



Freezer MK 074



Solar Freezer MK 044



Freezer MK 304



Cold Box



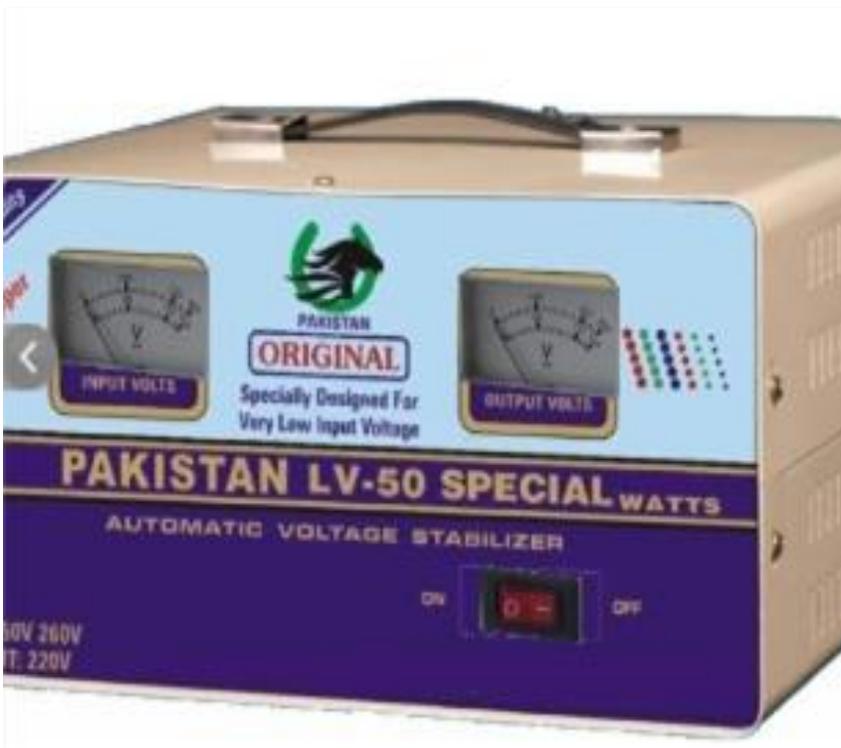
Thermometers



Vaccine Carrier



Voltage Stabilizer



Freezer Tag

